RFpeople

ET Docket No. 03-137 - Comments on the Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields

Comments on Categorical Exclusion and RF Exposure Compliance

Summary: *Categorical Exclusion is often confused with exclusion from compliance. We propose basing exclusion on the actual compliance guidelines instead of a separate table of approximations, which may lead to unsafe situations.*

We respectfully request that the Commission consider these comments:

"Categorical Exclusion" of RF emitters, and its effect on RF Exposure Compliance has been a source of great confusion within in the industry.

With respect to the use of Categorical Exclusion as a regulatory instrument, we believe that it is a laudable goal to attempt to install some level of consistency between services. However, we believe that Categorical Exclusion in its current form, as well as the form proposed in the NPRM only serves to continue to muddy the RF compliance waters.

Categorical Exclusion as currently presented creates essentially an additional set of equations for compliance determination. These 'weaker approximations' have been found in the past to cause confusion and lead to situations that could result in unintended RF hazards. The current proposal makes some corrections to Categorical Exclusion removing some of these known situations, however we believe this will likely continue to cause confusion and result in continued unintended consequences. When licensees, who may or may not be "categorically excluded" are collocated, complex interactions can and do occur. These collocation situations cannot be easily quantified in a simple table. An example of this is illustrated in Figure 1.

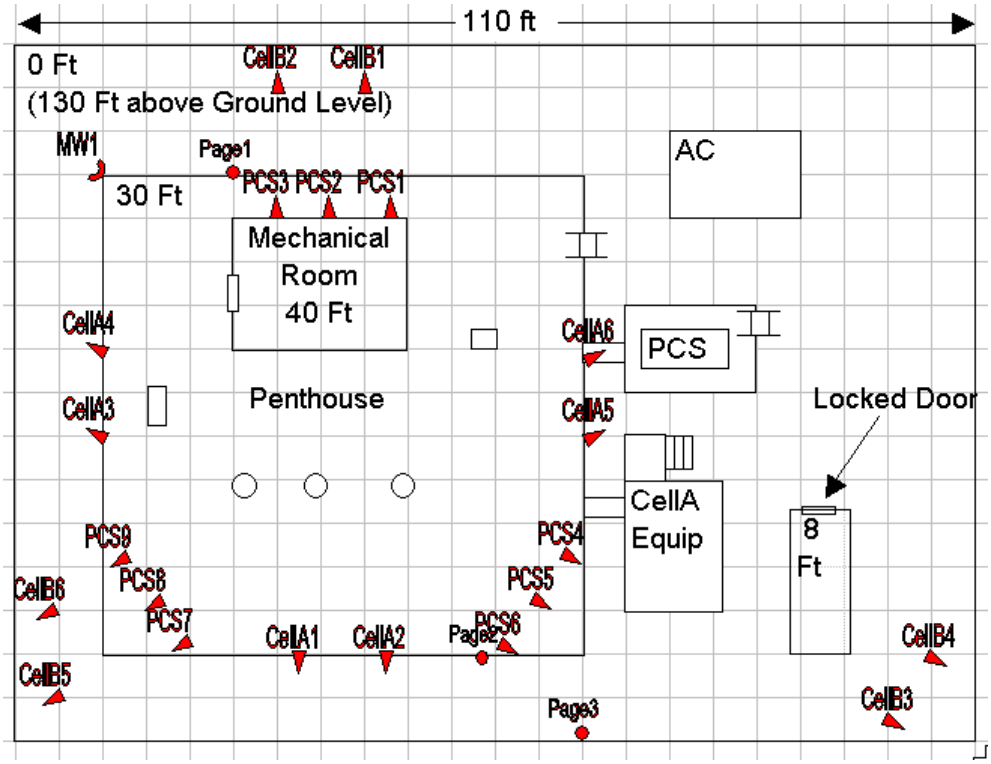

Figure 1. An example rooftop collocation of two cellular licensees, one PCS licensee and one paging licensee.

Figure 1 depicts an example rooftop collocation scenario. This is not an unusual situation and such collocation scenarios are becoming more and more common. For one reason or another each licensee in this example believes (see Table 1.) they are categorically excluded and so no determination of compliance (of any kind) has ever been done. Whether each licensee is correct or not, is not the point. Confusing rules lead to differing interpretations, and with no overall control mechanism dependent on combined RF exposure these decisions are often made in the field. This is not in the public interest.

Licensee	Stats	Reason	Result
Cell Carrier A	500 watts EiRP per sector, rad center 33 ft	> 10m above main rooftop	Excluded
Cell Carrier B	650 watts EiRP per sector, 8 ft rad center above main rooftop	Site secured from the 'general public' (door locked)	Excluded
PCS	893 watts EiRP per sector, 35 ft above main rooftop	> 10m above main rooftop	Excluded
Paging	Antenna 1,2 - 1800 watts EiRP per antenna (950 MHz), rad center 35 ft Antenna 3 – 950 watts EiRP (450 MHz) 8 ft rad center (Antenna 3)	All antennas are greater than 10m from the locked rooftop door	Excluded

Table. 1 Licensee reasons why they believe they are categorically excluded in the example depicted in Figure 1

We believe that none of these licensees in this example should be excluded from ensuring site compliance and taking steps to mitigate any excess exposure. Building personnel along with licensee personnel can and will access this rooftop to perform regular maintenance, without any guidance. With sites expanding to more and more apartment buildings, some, which even, have direct and frequent access by tenants (sun deck, party room, laundry room, etc), we feel there should be no confusion about licensee responsibility.

We believe Categorical Exclusion for routine Environmental Assessment (EA) would be best based on the actual RF compliance standard and not a separate approximation table.

An RF exposure threshold for accessible areas could be set for the Categorical Exclusion for routine EA that is based on the actual RF exposure standard, rather than some height, power or distance threshold. This would ensure that RF exposure rules are applied. An emitter, in combination with other emitters that does not meet RF Exposure rules could not be Categorically Excluded, unless it could be shown that positive means have been put in place, and maintained that would prevent the RF over-exposure of the general public and occupational workers. In this way Categorical Exclusion is never at odds with RF Compliance, it depends directly on it and extends it instead of conflicting with it.

Categorical Exclusion could be determined in advance for a facility by using an appropriate modeling technique, and considering all emitters that will contribute to the RF environment at a particular proposed location.

Timothy J. Noyes
RFpeople, LLC
48 Brooke Crest Lane
Stafford, VA 22554
tnoyes@rfpeople.com
www.rfpeople.com

RFpeople

Additional Comments to Specific Rule Text

> "Separation distance in this context is defined as the minimum distance from the radiating structure of the transmitting antenna in any direction to any area that is accessible to **a worker or to a member of the general public**." [1]

Conflicts with,

> *"The term "separation distance" in Table 1 is defined to mean the minimum distance from any part of the radiating structure of a transmitting antenna in any direction to any area that may be entered by **a member of the general public**."* [2]

The above statements appear that they could cause confusion. It is unclear whether separation distance applies to occupation tier workers, the general public tier or both.

> *"The appropriate exposure limits in §§1.1310 and 2.1093 of this chapter are generally applicable to all facilities, operations and transmitters regulated by the Commission. However, a **determination of compliance** with the exposure limits in §1.1310 or §2.1093 of this chapter (**routine environmental evaluation**), and preparation of an EA if the limits are exceeded, is necessary only for the facilities, operations and transmitters indicated in Table l, or those specified in paragraph (b)(2) of this section"* [3]

Conflicts with,

> *"... **licensees have often not considered their responsibilities to ensure compliance for workers who may have access to areas in closer proximity to antenna sites.** We propose to add the following language to Section 1.1310 of our rules, as a reminder of this obligation: "Licensees and applicants are generally responsible for compliance with both the occupational/controlled exposure limits and the general population/uncontrolled exposure limits in Table 1 as they apply to transmitters under their jurisdiction. Licensees and applicants should be aware that the occupational/controlled exposure limits apply especially in situations were workers may have access to areas in very close proximity to antennas where access to the general public may be restricted." "* [4]

If licensees believe they are categorical excluded from having to determine compliance, it should not be surprising that they have not done so. While much of Categorical Exclusion refers to the exclusion of routine evaluation, the exclusion for performing any determination is most concerning. Many licensees confuse exclusion from a formal EA (Environment Assessment) with exclusion from all responsibility for ensuring compliance with RF Safety guidelines. These exclusions are based solely on a simplified power, frequency, distance table, accounting only for one licensee, while OET-65 states in compliance, **ALL significant contributors** must be used in determining compliance. While the Commission has clearly placed text throughout to try to ensure licensees will understand their obligations and the meaning of Categorical Exclusion and RF Compliance, many have misunderstood, creating situations that should not continue.

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[1] #11 , NPRM 03-137 pg 5
[2] Table 1, NPRM 03-137 pg 29
[3] PART 1 – PRACTICE AND PROCEDURE, NPRM 03-137, pg 24
[4] #39, NPRM 03-137 pg 16